



Coastal Protection and
Restoration Authority of Louisiana

Flood Protection

TE-78

Binh Dao, E.I.
Engineering Division
May 6, 2014



committed to **our coast**

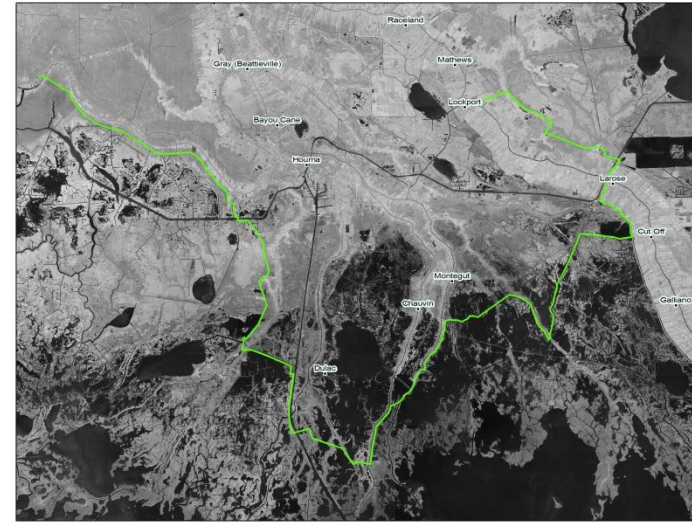
Cut-Off / Pointe-Aux-Chene Levee Rehabilitation

- Project Background
- Levee Design
- Pump Station
- Quantities
- Schedule

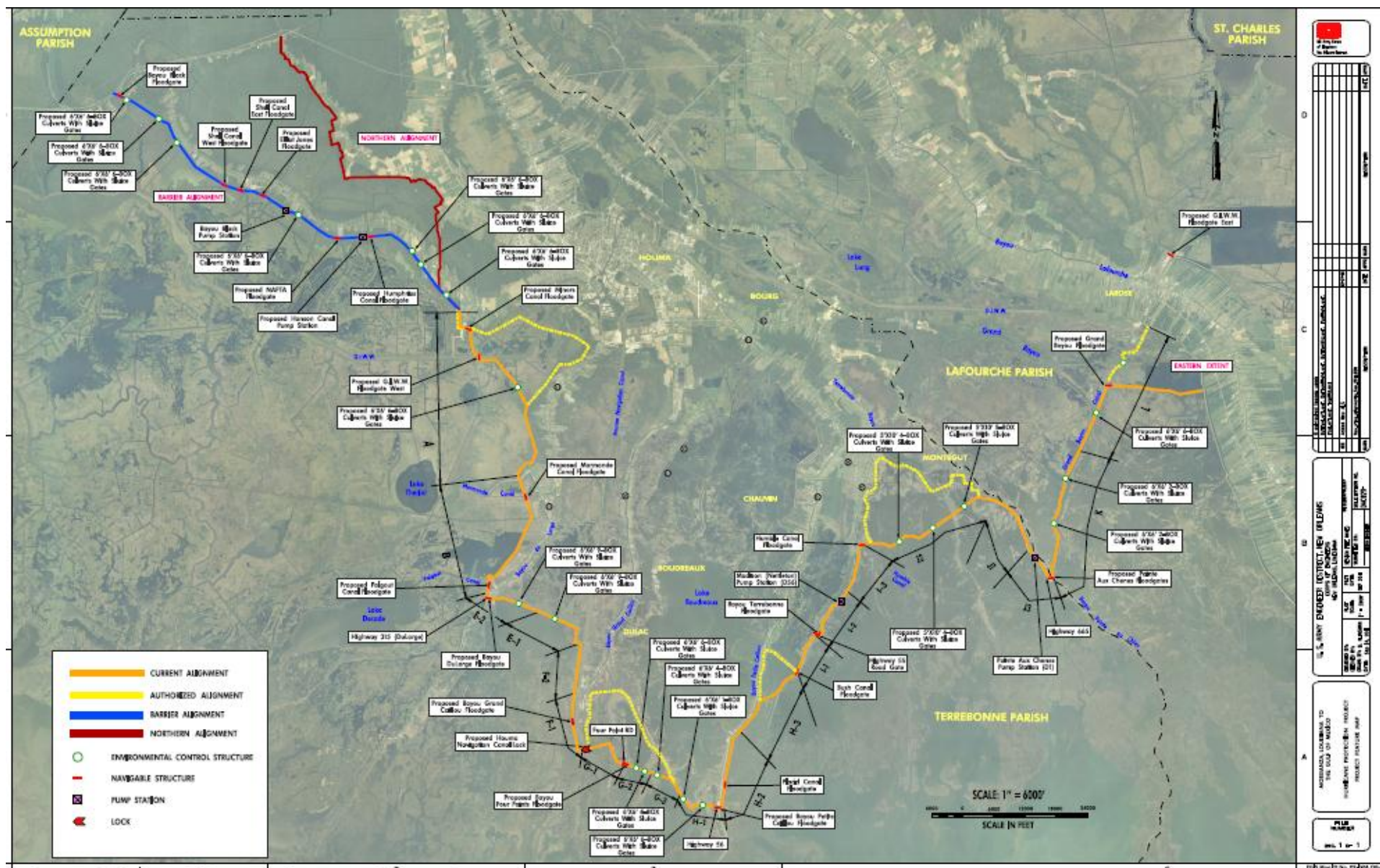
Project Background

Morganza to the Gulf

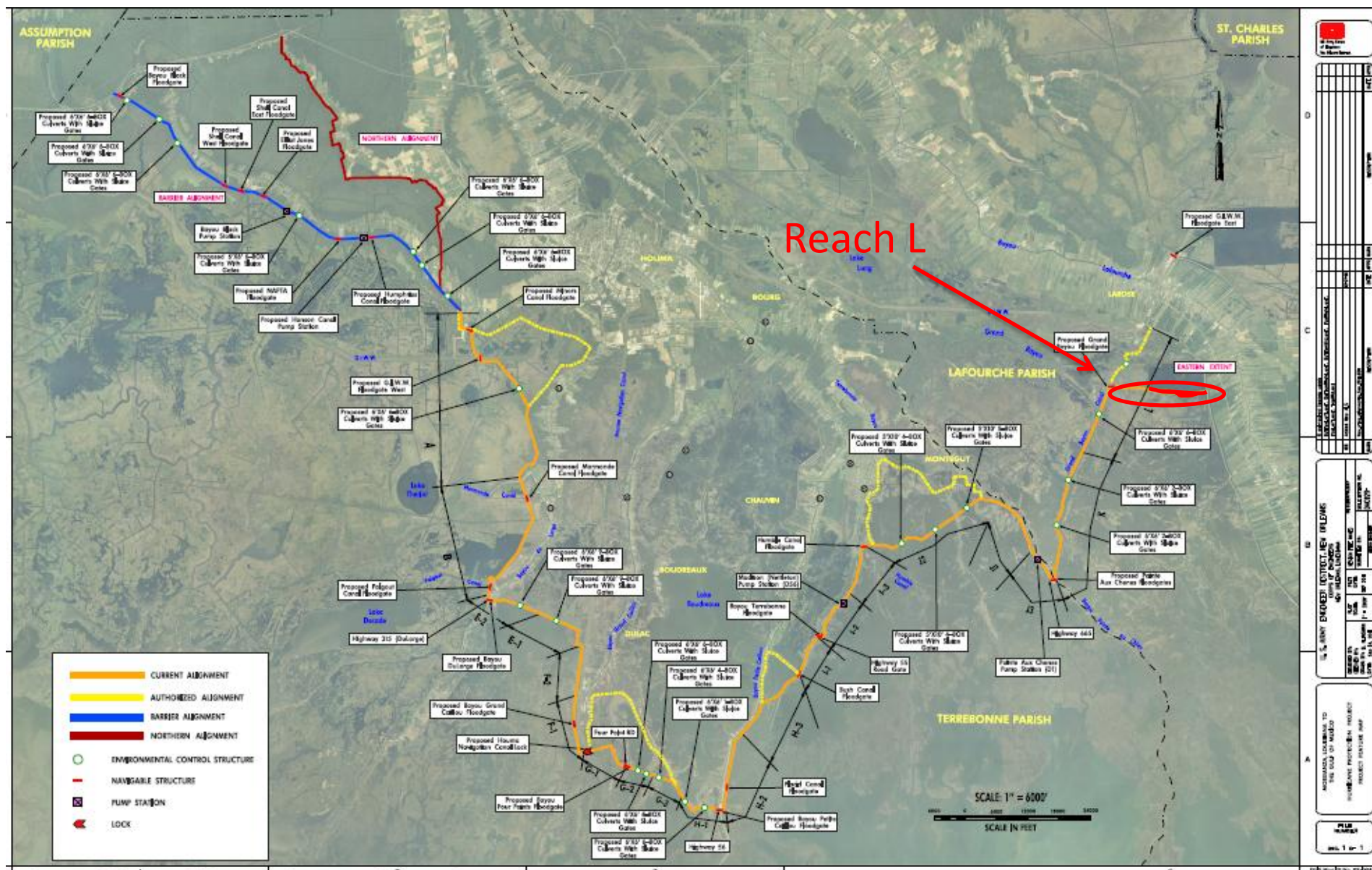
- **PROJECT PURPOSE:** Provide 100 Year protection levels to vulnerable communities, businesses, and infrastructure within Terrebonne and parts of Lafourche parishes.
 - Protects approximately 140,000 residents and 53,000 structures (47,000 residential, 6,000 nonresidential)
- **PROJECT FEATURES:** Construction levees and T-walls, navigation structures, water control structures, and floodgates.
- **PROJECT LENGTH:** 98 miles
- **PROJECT COST:** \$10.3 Billion total
(cost estimate from the Post Authorization Change Report)



Morganza to the Gulf Overview

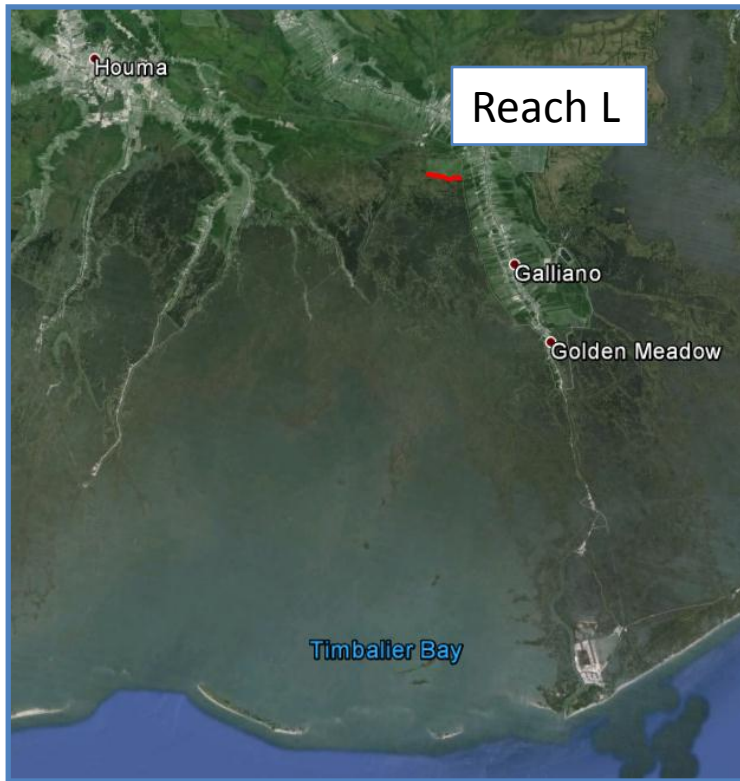


Morganza to the Gulf Overview



Project Background

Cut Off/Pointe-Aux-Chene Levee Rehabilitation

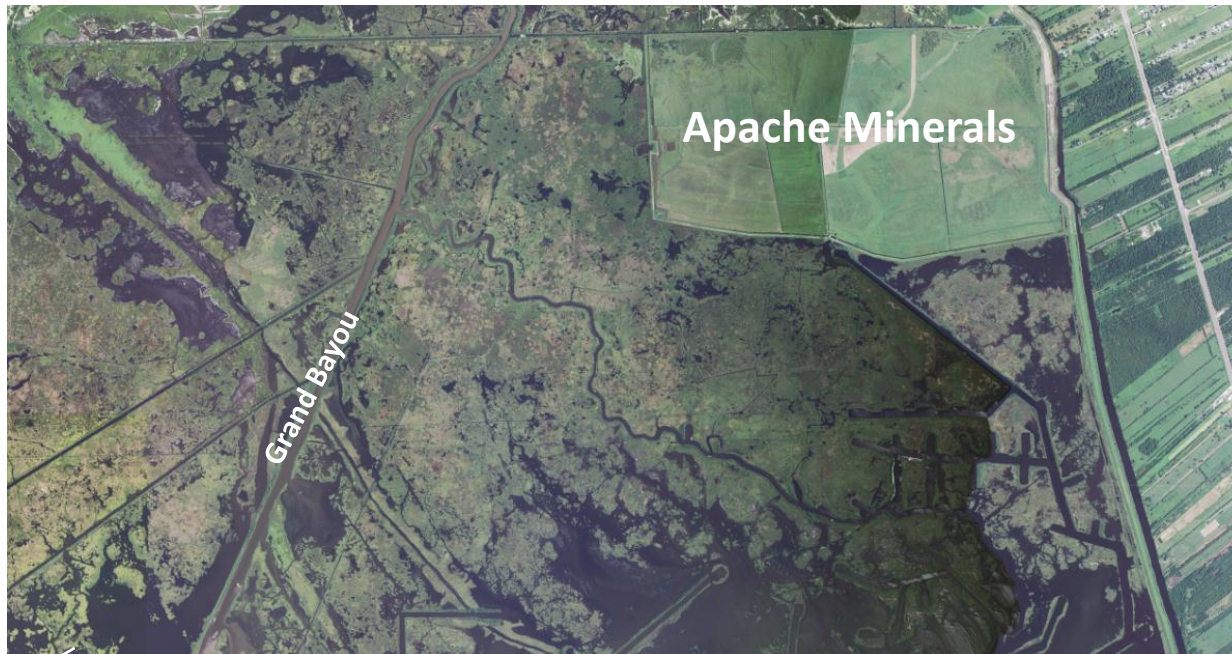


- CDBG Project
- Project Location:
Lafourche Parish
- Construction completed in 1990s for existing levee reach
- Part of Morganza to the Gulf Flood Protection System
- Reach L is approximately 2.2 miles



Project Background

- Reach L also helps protect the south side of a 1,400-acre parcel owned by Apache Minerals
- The current levee was built by landowners to an approximate elevation of 6 feet. More soil have been added over time. Levee elevation is now between 7 and 8 feet and does not meet current design standards.



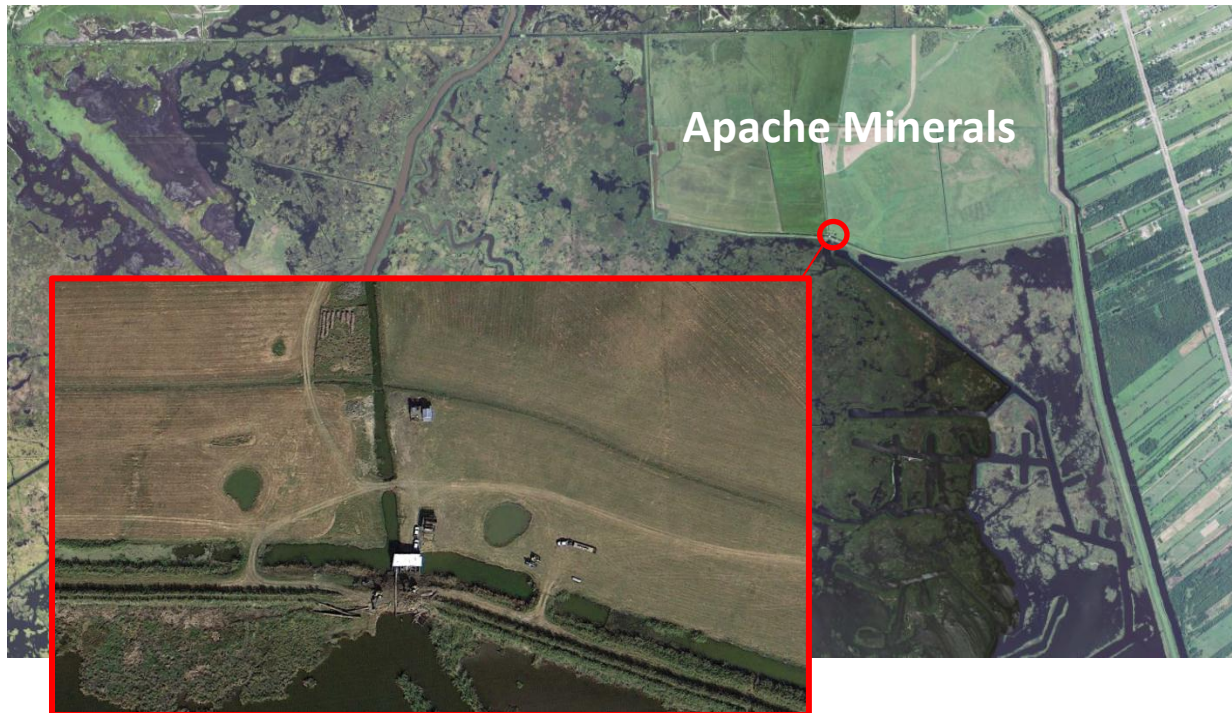
Project Background

Reach L Plan View



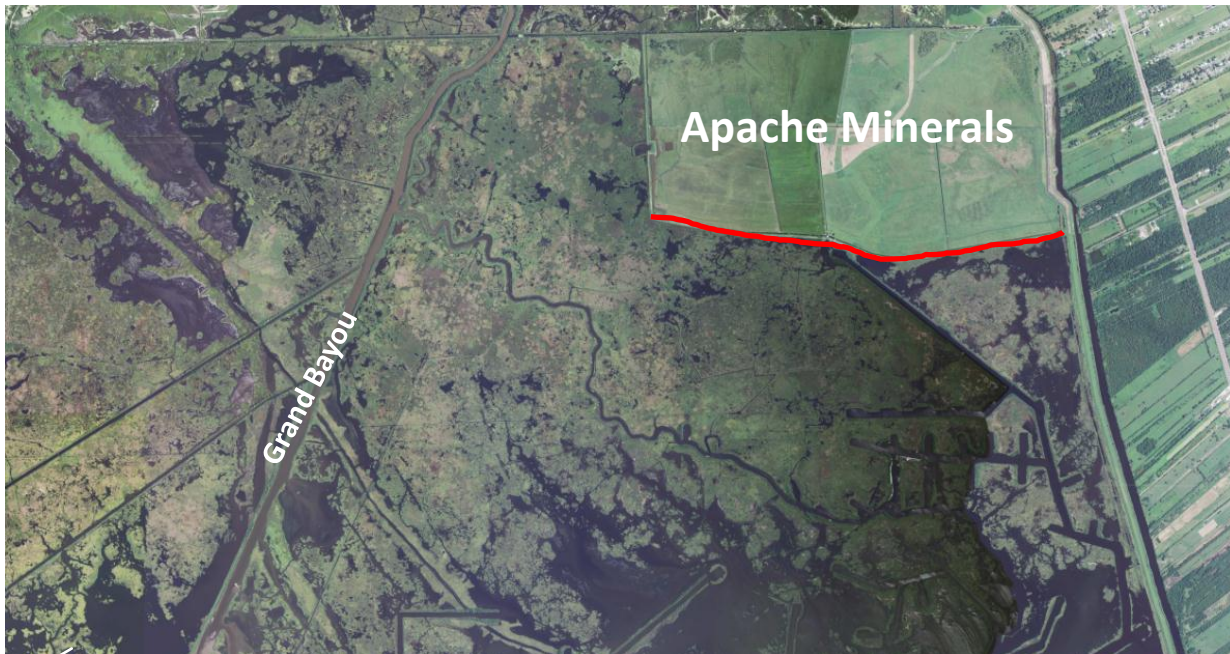
Project Background

- Plan view of current pump station



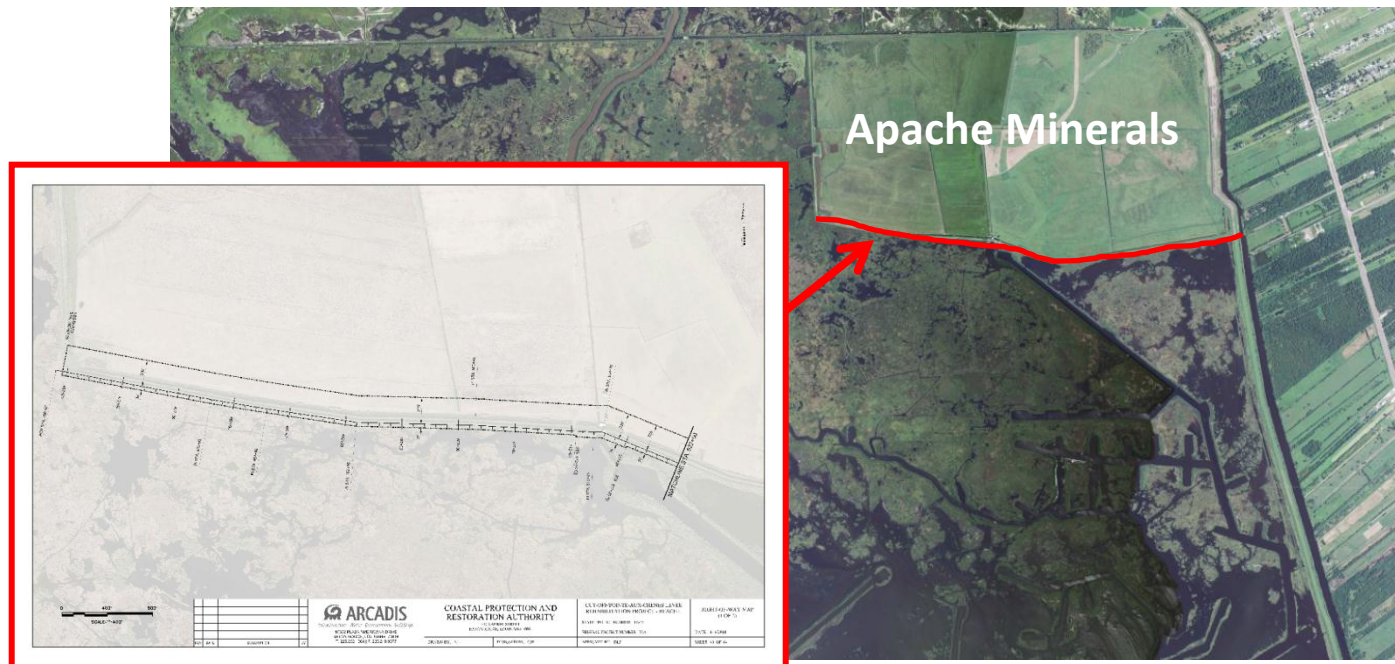
Project Background

- Reach L is approximately 2.2 miles



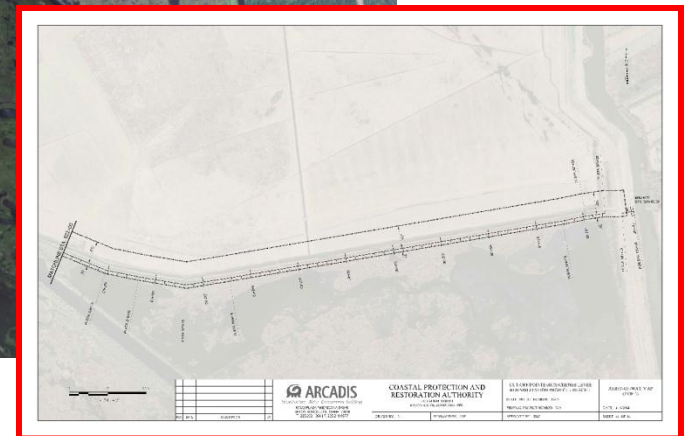
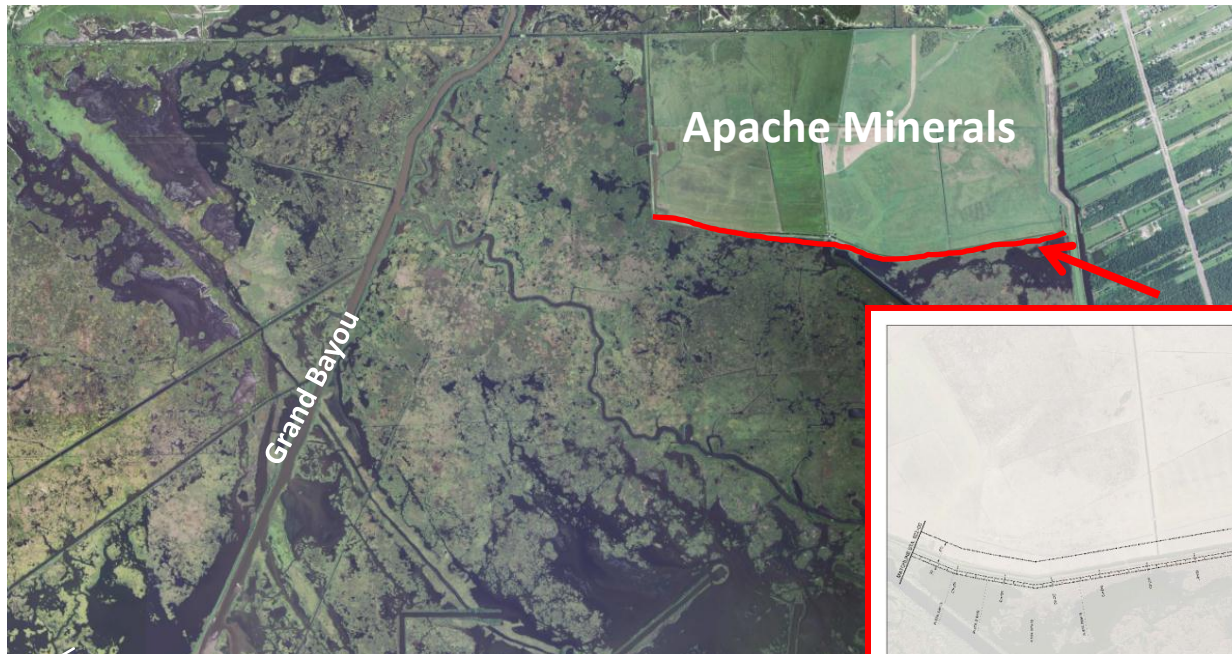
Project Background

- Reach L is approximately 2.2 miles



Project Background

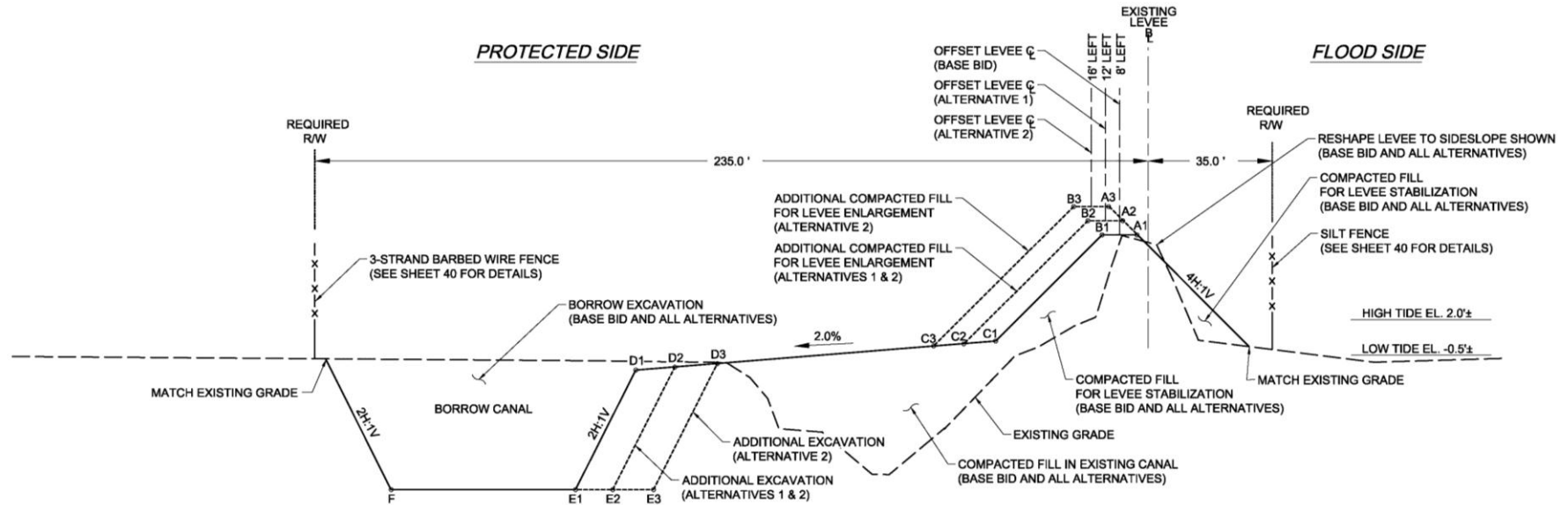
- Reach L is approximately 2.2 miles



Levee Design

- Raise & Reshape existing levee to meet design standards.
- Backfill adjacent drainage canal.
- Borrow area along the protected side of the existing levee.

Levee Design



STA. 468+00 TO STA. 512+50 AND STA. 517+00 TO STA. 578+00

TYPICAL SECTION - LEVEE AND BORROW CANAL

N.T.S

BASE BID

MARK	DESCRIPTION	OFFSET	ELEVATION
A1	LEVEE CROWN - FLOOD SIDE	-3.00	8.00
B1	LEVEE CROWN - PROTECTED SIDE	-13.00	8.00
C1	LEVEE TOE - PROTECTED SIDE	-43.00	0.50
D1	BORROW AREA - TOP OF SLOPE (RIGHT)	-144.50	-1.55
E1	BORROW AREA - BOTTOM OF SLOPE (RIGHT)	-161.50	-10.00
F	BORROW AREA - BOTTOM OF SLOPE (LEFT)	-213.50	-10.00

ALTERNATIVE NO. 1

MARK	DESCRIPTION	OFFSET	ELEVATION
A2	LEVEE CROWN - FLOOD SIDE	-8.00	9.00
B2	LEVEE CROWN - PROTECTED SIDE	-18.00	9.00
C2	LEVEE TOE - PROTECTED SIDE	-52.00	0.30
D2	BORROW AREA - TOP OF SLOPE (RIGHT)	-133.50	-1.35
E2	BORROW AREA - BOTTOM OF SLOPE (RIGHT)	-151.00	-10.00
F	BORROW AREA - BOTTOM OF SLOPE (LEFT)	-213.50	-10.00

ALTERNATIVE NO. 2

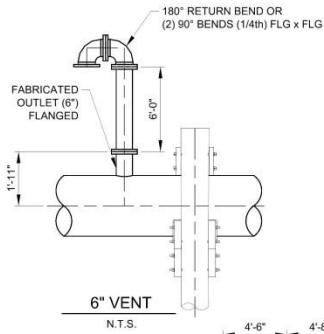
MARK	DESCRIPTION	OFFSET	ELEVATION
A3	LEVEE CROWN - FLOOD SIDE	-11.00	10.00
B3	LEVEE CROWN - PROTECTED SIDE	-21.00	10.00
C3	LEVEE TOE - PROTECTED SIDE	-60.50	0.15
D3	BORROW AREA - TOP OF SLOPE (RIGHT)	-121.50	-1.10
E3	BORROW AREA - BOTTOM OF SLOPE (RIGHT)	-139.50	-10.00
F	BORROW AREA - BOTTOM OF SLOPE (LEFT)	-213.50	-10.00

Pump Station

- Floodwall to protect existing drainage pump station.
- Upgraded Drainage Pipes & Support
- New Bulk Head

Coastal Protection and Restoration Authority of Louisiana

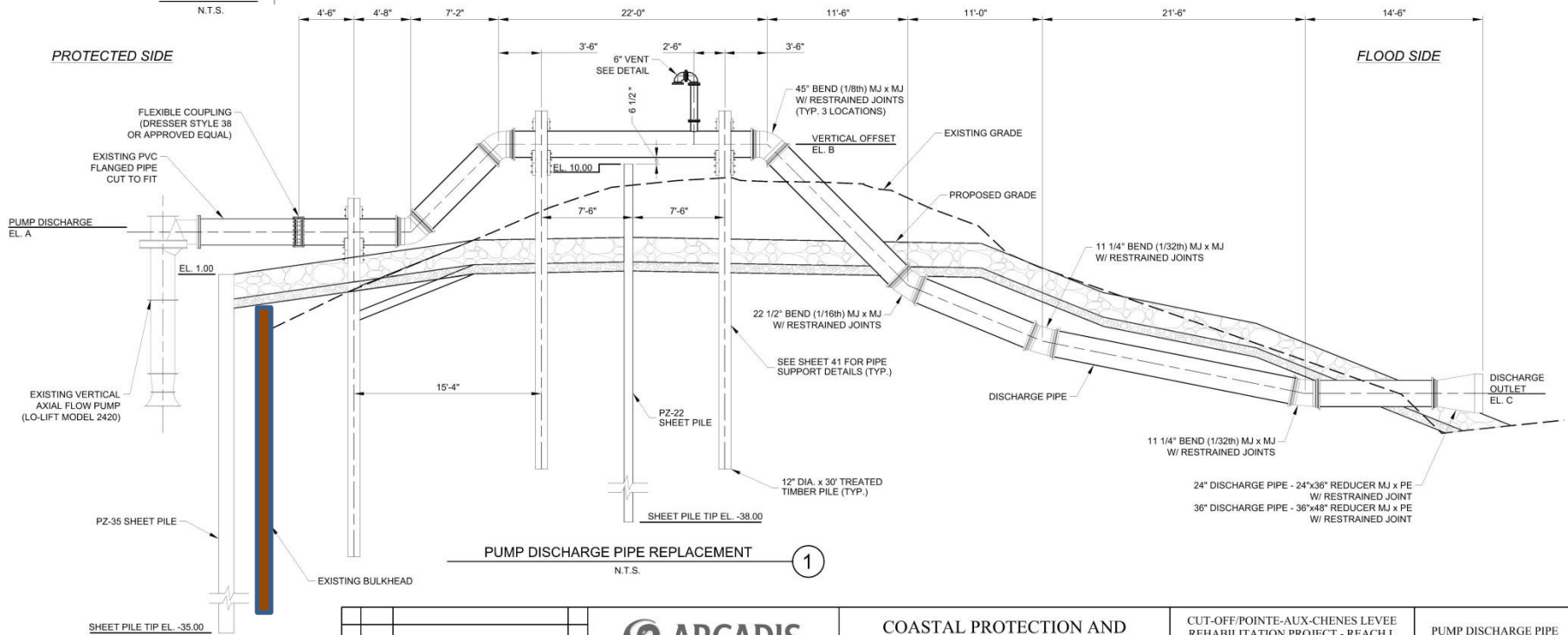




PIPE DIA.	ELEVATION		
	A	B	C
24"	4.60	11.75	-8.60
36"	5.10	12.25	-8.10

NOTES:

1. ALL PIPE TO BE PLAIN END DUCTILE IRON, CLASS 250, EXCEPT WHERE NOTED.
2. ALL FITTINGS TO BE MECHANICAL JOINT WITH RESTRAINT. RESTRAINING GLAND TO BE MEGALUG SERIES 1100 OR APPROVED EQUAL.



REV	DATE	DESCRIPTION	BY

ARCADIS
Infrastructure · Water · Environment · Buildings
10352 PLAZA AMERICANA DRIVE
BATON ROUGE, LOUISIANA 70816
T. 225.292.1004 | F. 225.218.9677

COASTAL PROTECTION AND RESTORATION AUTHORITY

450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: AJL

DESIGNED BY: GJK

CUT-OFF/POINTE-AUX-CHENES LEVEE REHABILITATION PROJECT - REACH L

STATE PROJECT NUMBER: TE-78

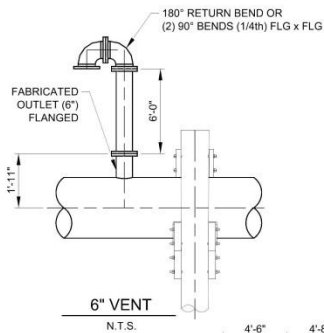
FEDERAL PROJECT NUMBER: N/A

APPROVED BY: DLF

PUMP DISCHARGE PIPE REPLACEMENT

DATE: 4/16/2014

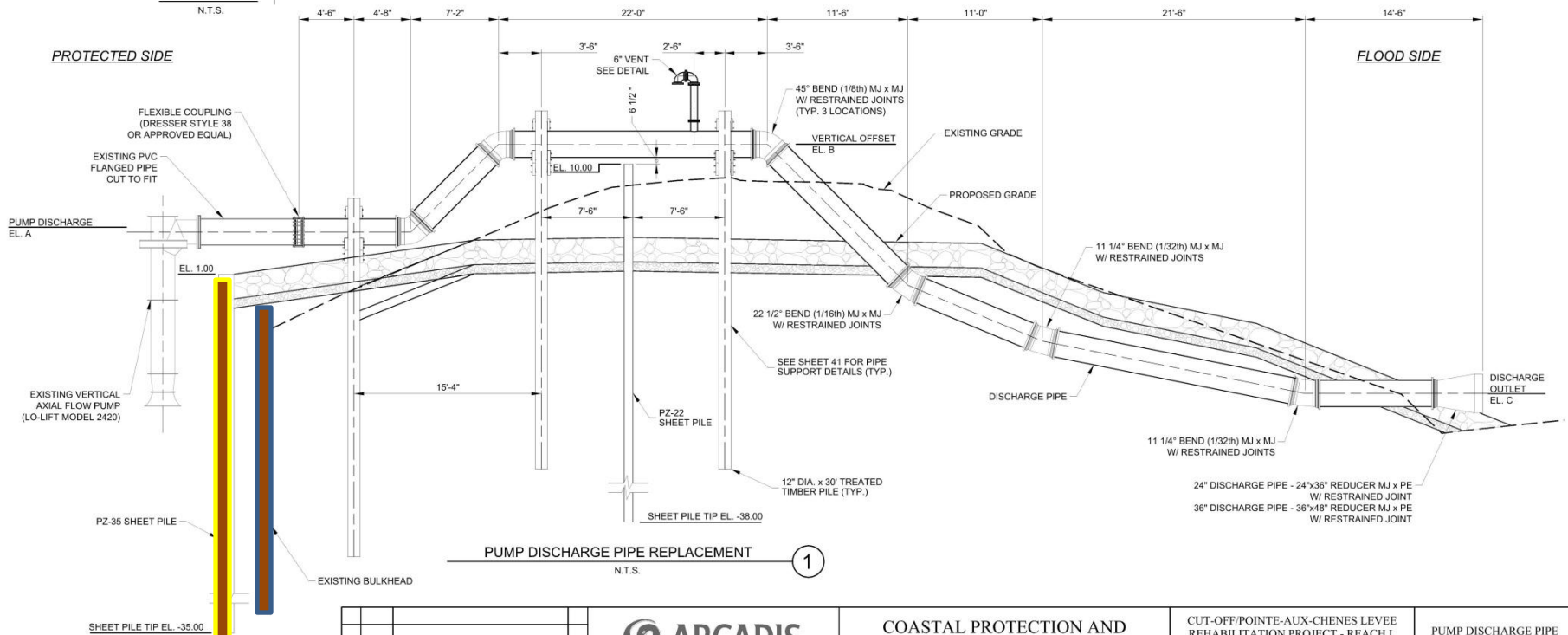
SHEET 23 OF 44



PIPE DIA.	ELEVATION		
	A	B	C
24"	4.60	11.75	-8.60
36"	5.10	12.25	-8.10

NOTES:

1. ALL PIPE TO BE PLAIN END DUCTILE IRON, CLASS 250, EXCEPT WHERE NOTED.
2. ALL FITTINGS TO BE MECHANICAL JOINT WITH RESTRAINT. RESTRAINING GLAND TO BE MEGALUG SERIES 1100 OR APPROVED EQUAL.



REV	DATE	DESCRIPTION	BY

ARCADIS
Infrastructure · Water · Environment · Buildings
10352 PLAZA AMERICANA DRIVE
BATON ROUGE, LOUISIANA 70816
T. 225.292.1004 | F. 225.218.9677

COASTAL PROTECTION AND RESTORATION AUTHORITY

450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: AJL

DESIGNED BY: GJK

CUT-OFF/POINTE-AUX-CHENES LEVEE REHABILITATION PROJECT - REACH L

STATE PROJECT NUMBER: TE-78

FEDERAL PROJECT NUMBER: N/A

APPROVED BY: DLF

PUMP DISCHARGE PIPE REPLACEMENT

DATE: 4/16/2014

SHEET 23 OF 44

Quantities

Estimated Quantities		
Separator Geotextile	SY	5,000
Embankment, Compacted Fill	CY	225,000
Piling, Steel	SF	18,800
Seeding & Mulching	AC	45
24" Culvert	LF	800
Filter Stone	CY	400
55-LB Class Riprap	TON	3,700

Schedule

- Engineering and Design: At 95%
- Estimated Construction Start Date: Status Pending.

QUESTIONS